



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,542	03/31/2004	Todd Brooks	20031007-001	7405
<div>7590 04/06/2007 Roger L. Belfay 829 Tuscarora Avenue Saint Paul, MN 55102</div>			<div>EXAMINER JOYCE, WILLIAM C</div>	
			<div>ART UNIT 3682</div>	<div>PAPER NUMBER</div>
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/06/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/814,542	Applicant(s) BROOKS, TODD	
	Examiner William C. Joyce	Art Unit 3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

This is the First Office Action in response to the above identified patent application filed on March 31, 2004.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the tubular member having a circular cross section (claim 3), an oval cross section (claim 4), a triangular cross section (claim 5), and the stanchions being affixed to each face of the tubular member (claim 6) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

Art Unit: 3682

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-In claim 1, it is unclear as to whether the "plurality of rollers" (line 2) are the same components as the "set of rollers" (line 13). Examiner suggests changing "a set of rollers" (line 13) to --the rollers--.

- The limitation "a tubular support member with a plurality of faces annularly rotatable about the longitudinal axis and capable of longitudinal movement along the axis" (line 9 of claim 1) is not fully understood because the specification describes the tubular support member as having means to prevent rotation about the longitudinal axis. For example, the specification (page 1, second full paragraph) states "[S]uitable means such as slots or flat surfaces mated to the tubular support member 6 prevent the tubular support member 6 from annular rotation to assure that forces applied to the rollers 3 by the drive disk 5 result in application of opposite forces to the driven disk 15. Appropriate correction is required.

-In claims 3-4, it is understood the tubular support member is either circular or oval in cross section, however claim 1 defines the tubular support as having a plurality of faces. It is unclear how the tubular support member can be, for example, circular in shape and have a plurality of faces. A dependent claim must incorporate all the limitations of the independent claim. Appropriate correction is required.

-The limitations of Claim 8 are not fully understood because they appear to be identical to the limitations of claim 7.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3, 6, 9, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by either USP 5,069,655 or 5,273,501, both to Schievelbusch.

Schievelbusch discloses a continuously variable transmission having a longitudinal axis comprising: a plurality of rollers 35, each having a tiltable axis of rotation, and each roller located radially outward from the longitudinal axis; a drive disk annularly rotatable 25 about the longitudinal axis and contacting a first point on each of rollers and having a first side facing the rollers and a second side facing away from the rollers; a driven disk 27 annularly rotatable about the longitudinal axis and contacting a second point on each of the rollers; a tubular support member 47 with a plurality of

Art Unit: 3682

faces (see Fig. 2 or Fig. 4) annularly rotatable about the longitudinal axis and capable of longitudinal movement along the longitudinal axis; a set of roller support stanchions 39,45 each with a first end and a second end, said first end being affixed to one of the tubular support member faces; the rollers, each rotatably mounted to a first end of a roller support shaft, said roller support shaft being pivotally attached to said second end of a roller support stanchion; a bearing disk annularly rotatable about the longitudinal axis, and adapted to provide rotational force to the drive disk; at least one axial force generator, the axial force generator located between the drive disk and the bearing disk, the axial force generator configured to apply a component of axial force to the drive disk, thereby, improving the contact of the drive disk and the rollers as well as between the rollers and the driven disk.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2, 4, 5, 7, 8, 10, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,069,655 or 5,273,501, both to Schievelbusch, as applied to claim 1 above

The prior art described above does not clearly teach the tubular member as having different shapes, such as being hexagonal, oval, or triangular. However, it would

Art Unit: 3682

have been within the skill of one in the art to form the tubular member of Schievelbusch in any one of the claimed shapes, as a matter of design choice. Further, the claimed tubular member does not appear to provide any benefit over the shape of the tubular member taught by the prior art to Schievelbusch.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note the CVT arrangement of Almen ('638), Perry ('938), Perry ('267), and Madle ('633).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Joyce whose telephone number is (571) 272-7107. The examiner can normally be reached on Monday - Thursday 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William C. Joyce